DOCUMENT RESUME

ED 244 361 EA 016 792

AUTHOR Comfort, Ronald E.
TITLE Analyzing the Operational Curriculum of a School: A Case Study.
PUB DATE 84
NOTE 51p.; Paper presented at the Annual Meeting of the American Educational Research Association (New Orleans, LA, April 23-27, 1984).
PUB TYPE Reports - Research/Technical (143) -- Speeches/Conference Papers (150)

EDRS PRICE MF01 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS Behavioral Objectives; Class Organization; Cognitive Objectives; Curriculum Design; *Curriculum Research; Educational Environment; Elementary Education; *Elementary School Curriculum; *Hidden Curriculum; *Holistic Approach; Incidental Learning; Interrater Reliability; Observation; *Research Design; *Research Methodology; Student Development; Time Management

ABSTRACT

In a 6-month study of a small private school (Fielding) in central Virginia, seven participants in a curriculum practicum tested a research strategy for investigating the knowledge, skills, and attitudes fostered by a school's environment. Given the subjectivity of environmental influences, the team rejected scrupulous data collection to concentrate on the gestalt. As the study proceeded, each member developed generalizations to be discussed and synthesized in weekly meetings. After interviewing teachers to characterize the school environment, the researchers investigated the organization of subject matter. They then studied the ways students were grouped for instruction and the usage of nine learning tasks and of six "cognitive levels." Finally, they observed behavior in and around the school building. The curriculum design and instructional practices consistently emphasized basic skills. The environment taught self-confidence, hard work, deference to authority, and balanced cooperation and competition. Thus The research strategy used in this study proved successful; the practical background of all the researchers was important to its success. Although the study was more exhaustive than necessary, researchers must rely on "reasonable judgment"--not a formula--to build consensus in a team and decide how much information to collect. (MCG)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED244361

Analyzing the Operational Curriculum of a School

A Case Study

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

X This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL IN MICROFICHE ONLY HAS BEEN GRANTED BY

Ronald E. Comfort

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

Ronald E. Comfort
University of Virginia

I would like to thank the following individuals whose effort, expertise and committment made this project possible.

Marty Aylesworth
Lori Damron
Lisa DiNunno
Nat Goddard
Dick Needham
Bill Palmer

AERA
1984

EA 016 792

Table of Contents

Introduction 1

Nature of Inquiry 3

Conceiving operational curriculum 3

Identifying environmental emphases 4

On the process of interpretation 7

Findings and Interpretations 10

Summary of initial interviews 10

Program content 14

Instructional characteristics 30

Climate 36

Conclusions and Reflections 41

Notes 45

INTRODUCTION

What does a school teach? What knowledge, skills, and attitudes are actually encouraged by a school as a function of its programmatic, behaviorial, and structural regularities?[1] In other words, operationally, what is the curriculum of a school? This is a distinctly different question than those that address what should be the curriculum of a school, what do participants perceive the curriculum of a school to be, and what learnings do students demonstrate as a function of their engagement in the school. What is of primary concern with the concept of operational curriculum is the determination of learnings which are most consistently fostered across classrooms and levels into which a school is divided. The school, as an entity, is a whole environment; its holistic elements are patterns of regularity which serve as directional influences for student behavior.

On the surface, schools appear as "noisy," complex settings. They appear to be made up of fragmented, disconnected units with limited interdependence. In order to inquire beneath the surface appearances and identify the range of learnings most consistently fostered by a school, a strategy of analysis must be constructed which satisfies the tests of reasonability. In other words, the process of analysis and its product needs to be judged as credible or justifiable. In addition, the resources necessary to render the analysis should not be so great as to discourage such analyses.

The answer to the practical question "What is the operational curriculum of a school?" can be of value to particular institutions as well as to the field of curriculum inquiry. To know what, in practice, are the most focal knowledges, skills, and attitudes "taught" by a school is to know what is organic about that school; what it means as a community or what gives it coherence. A knowledge of what is curricularly coherent can contribute to a sense of community and be used as a base for subsequent evaluations and decision-making about change. Indeed, evaluations of discrepancy between what is and what is perceived or intended by participants in a particular institution become possible. What changes should be made in school practices, with what priority, and in what combinations are questions which can be addressed with greater clarity and reason by a school's membership if they have a knowledge of what is curricularly extant.

What follows is a report of an exploratory study intended to result in a reasonable strategy for analyzing and describing the operational curriculum of a school. Seven investigators were involved in the construction of that strategy and the testing of its elements in a case study of Fielding School, a private elementary school in central Virginia. While the central purposes of our efforts were related to determining and testing a strategy, a secondary purpose was to render a definition of Fielding School's operational curriculum for its administrators

and teachers.

All seven members of the investigatory team had been teachers, had had experiences in the design and/or evaluation of curriculum and instructional programs, and were participants in a curriculum practicum at the time of the study. Indeed, it was this practicum which was the vehicle for their involvement. Six of the team members were doctoral students with three majoring in curriculum and instruction and the other three majoring in educational evaluation, educational psychology, and administration. The team was engaged in this study for slightly more than seven months during which they averaged about four hours a week in group deliberations and were expected to spend a minimum of six hours per week at Fielding School.

Fielding School is a private institution which, at the time of the study, contained nursery school through grade six and enrolled approximately two hundred sixty students. There were two sections of each grade level, kindergarten through grade six, with an average of fifteen students per section. By second grade students were grouped by achievement in reading and mathematics and by fourth grade had separate teachers for each of the subject areas. The staff was made up of twenty-two teachers, one librarian, one resource teacher, and the headmaster.

Fielding's interest in our study was predominantly a function of the headmaster's interest. In a casual conversation, he expressed a desire to know what Fielding really taught; "not what we might say we teach, but what we really foster in our school." On the basis of this dialogue, an agreement to study Fielding School was reached.

The remainder of this paper is divided into three sections, "Nature of the Inquiry", "Findings and Interpretations", and "Conclusions and Reflections." "Nature of the Inquiry" discusses contextual elements of our inquiry and methods employed. "Findings and Interpretations" contains some major parts of our report to Fielding School. The nature of our approach and some of the specifics of our strategy and findings are illustrated. The final section, "Conclusions and Reflections," presents some broad conclusions/reflections about the nature of operational curriculum and the challenges facing those who would engage in its study.

NATURE OF THE INQUIRY

Prior to engagement with Fielding School, members of the analysis team met for several sessions to discuss key issues and to agree on several assumptions or starting points. These were critical sessions in that the assumptions were to serve as "givens" which would guide the conceptualization and execution of the analysis. Subsequent coherence of inquiry would rest on the degree to which there was a shared set of meanings. How were we to conceive operational curriculum? What was to be the nature of our inquiry? What kinds of "data" were we to collect and how extensive should be the sampling? What was to characterize the process of constructing meaning from the evidence collected and organized? These questions gave focus to our initial meetings.

Conceiving operational curriculum

In approaching the question, "what learnings are actually fostered at Fielding School?", several possible meanings could be obtained. We could concentrate on the stated intentions of the school staff in asking "what are the goals and objectives?" It would be possible to concentrate on the subjects of instruction and their content by asking "what is the course of studies at Fielding?" One might focus on student achievement, asking, "what do students actually learn?" These approaches are common and traditional with curriculum studies. Each, taken alone, provided a more limited perspective than what we intended, however. Our intention to describe the operational curriculum of Fielding involved answering the question, "what does the school environment emphasize?"

Consistent with the perspectives of R.G. Barker[2], Paul Gump[3], Seymour Sarason[4], Robert Dreeben[5], and Elliot Eisner[6], a school was conceived as more than the accretion of individual courses, classes, grades, or other units into which it is divided. It is more than the sum of practices and events which occur within and across those sub-settings. Fundamentally, a school manifests cultural characteristics. Analogous to an individual, it has a personality. Against the "ground" of a multitude of daily assignments, interactions, and instructional/learning events, there are "figures"; salient characteristics which define the organic nature of the school. It is this set of characteristics which most strongly influences what learnings students are encouraged to assimilate.

Despite the variety of practices or behaviors within and across school settings, there are consistencies of content, tasks, rules, and human relationships. School-wide in scope, these consistencies "stand out" as environmental regularities and operate to encourage certain learning outcomes. With the description of these regularities, it is possible to infer knowledge, skills, and attitudes which are most powerfully

fostered by a school as a whole entity.

Identifying environmental emphases

Given our orientation to operational curriculum, we came to an important conclusion: that our task was inherently practical rather than "theoretical" in nature. However we organized ourselves, whatever kinds of information/data we were to collect, and whatever means we would use to collect and interpret information, the essence of our analysis would be the reasoned intuitions of team members looking for patterns and not the objective summary of the researcher looking for certitude. It was this perspective which served as an important "touchstone" throughout the course of our study.

Consistent with this perspective about our task, we came to view each member of the team as an "instrument" for collecting and interpreting information. In the broadest sense, each was to serve as an observer defining environmental regularities and sharing in the process of inferring their meaning in terms of learning fostered. To lend focus and economy of resources to our efforts, however, concensus was reached concerning how to organize the team and what kinds of information/data to gather. These decisions were not meant to preclude each member from operating as a perceptual instrument; they were intended to provide a core of questions and modes by which some commonality of perceptual focus would operate.

Each of six members of the team was to be assigned to three or four teachers representing two or three contiguous grade levels. This was to encourage both depth of analysis by each investigator and make easier the defining of continuity across grade levels. In addition, the assignment would foster a greater level of trust between each teacher and team member, a relationship whose importance cannot be overemphasized.

Since we were seeking to identify predominant, recurring aspects of the environment, we decided that it was not necessary to attempt a compilation of all practices, events, materials, and interactions. The most salient aspects of the environment should be identifiable by sampling dimensions of school practices/behaviors and sampling activity within those dimensions. If an element is salient, it will be consistently reflected in the substance and activity of school operations; therefore, the depth of description typical of ethnographic research was deemed inappropriate for our purposes.

Although the particular means of deriving "data" were modified during the course of the study, our initial decisions of "what to look for" were sustained. Given our knowledge of schools and school functions, we agreed that research focuses would be on the content with which students engaged, the nature of the learning tasks and instructional characteristics, and the nature of the social interactions and social climate of both

classroom and non-classroom settings.

In order to identify the recurring elements of content at Fielding, we sought information about several aspects of the school operation.

1. Into what broad units were the program divided (subjects) and what priorities were reflected in the time allocations to each division? These decisions are important indicators of how knowledge and skills are conceived and the relative value which is attached to each part of the program.

2. What concepts, ideas, generalizations, and/or themes seem to characterize each subject by grade level, each subject across grade levels, and each grade level across subjects? We noted the basic content elements for each instructional unit of each subject. By examining the basic textual materials, teacher plans, tests, major assignments/projects, and a sampling of homework, class activities, and questions, we were able to determine the basic content and skills of focus.

It is the pattern of learning tasks or activities which encourages the acquisition of content and which represents a definition of what level of content is most important and learnable. For example, predominance of memorization of separate units of information is a different statement about content and learning than is the emphasis of particular themes through the utilization of information units in responding to broader questions. Learning tasks also serve as the medium for fostering academic and intellectual skills and attitudes.

Taking a sample of learning tasks/activities from classroom proceedings, homework, tests, and major projects/assignments, we categorized tasks according to cognitive level and according to a typology which included:

-reading
-listening
-observing
-reciting
-discussing
-drilling/practicing
-role playing/simulation
-solving closed problems
-solving open problems

More about the meaning of these categories will be presented in the next major section of this paper.

We also attempted to "cue into" characteristics of the learning and instructional process by observing classroom proceedings. On average each classroom/teacher was observed for an hour each week over the course of six months. Each member of

the analysis team would note the content of the session and categorize the learning tasks according to the schemas presented above. In addition, learning tasks were categorized as:

-same task/large group
-same task/small group
-same task/individual
-multiple tasks/small group
-multiple tasks/individual

Initially, we devised rather elaborate observation frameworks and taxonomies by which to partition and particularize the instructional flow of the classroom. As the study proceeded, however, we found that that strategy was both costly and ineffective for our purposes. Not only did the complex frameworks require great amounts of time to complete, they tended to focus attention to the "letter" of particular aspects rather than to the "spirit" or broader characteristics of the classroom fabric.

We found that observing instructional settings with certain questions as a guide was more useful in fostering judgments of saliency and, therefore, more consistent with our purpose. As a result, the following aspects of the classroom setting illustrate our focus.

1. What is the nature of classroom talk?
2. What was the nature of participation during sessions?
3. To what degree were teacher behaviors characterizable as strict, formal, focused, plan centered, punishing, perfunctory, and fostering of cooperation?
4. To what degree were sessions characterizable as on versus off-task?

As with all of the particular categories of content, tasks, and classroom phenomena on which we commonly focused, we saw them as reflecting the fabric of schooling at Fielding School rather than representing a complete rendering of all the strands which made up that fabric. As previously noted, the most salient aspects of a school ecology will be consistently reflected across the variety of categories into which the school system can be divided. Sampling some of them should produce reasonable judgments of what aspects of the environment are regularities.

All of our efforts to describe the salient aspects of Fielding School were efforts to identify "what stands out?" While we started with certain common questions and common approaches to examining content, learning tasks, and the instructional settings, each member of the team was to also serve as an "open instrument." In observing the operations of the School, each was to note behaviors and practices which seemed to recur and to be important. Beyond the elements described previously, were there features of human interaction, content, learning activities, rules, and rituals which seemed to be "figures" against the "ground" of the School environment? Were

there aspects of the environment which, in their interaction, defined the climate? As open instruments, team members were asked to use their experience and knowledge as perceptual screens to isolate regularities. This part of our strategy for identifying environmental emphases proved to be of particular value in the process of corroborating tentative conclusions as the group engaged in interpreting findings.

On the process of interpretation

To be able to infer what knowledge, skills, and attitudes were strongly encouraged by the environment of Fielding School required identification of regularities of content, learning tasks, and characteristics of the instructional setting, human interaction, and climate. Throughout the months of the study each team member cumulatively noted and organized information about aspects of the environment broadly sketched in the previous section. In addition, each was to "step back" from the separate categories of information and suggest generalizations about the environment at Fielding and, given those generalizations, to offer hypotheses about what learnings were strongly fostered. Thus, information collecting and organizing, proposing what environmental features seemed general and operative, and inferring learnings from them were occuring simultaneously during the study. While each team member was engaging in these processes from his particular perspective of the school, weekly group meetings were held to foster a synthesis of individual efforts.

During the early phases of our study, team meetings focused on constructing shared meanings about operational curriculum and selecting means for our inquiry into it. As members of the team collected and organized "data" from their analyses and observations, they presented their findings and initial interpretations to the group. Through discussions and critiques of these presentations, we operationalized the nature of our inquiry process. The process of seeking congruency among findings, generalized features, and inferred learnings was practiced over and over again. Sought as well was inter-observer agreement about the reasonableness of that congruity and of the adequacy of the "data base" upon which judgments were based.

For example, two of the team members presented "data" and interpretations about the social studies component of grades two through five. A survey of instructional units, textual materials, classroom and homework activities, and tests led to the hypothesis that while individual instructional units were focused in terms of particular ideas, concepts, societies, or cultural epochs, there were not overarching concepts or themes which integrated social studies within or among grades. As a result of subsequent discussions, team members reexamined data related to social studies content and sought additional information by which to dispute or corroborate the tentative interpretations initially offered. As our work progressed, team

members came to agreement with the initial interpretations about the episodic character of the content organization of social studies.

In other situations, initial findings and interpretations were transformed in light of additional information and group discussions. For example, we ultimately concluded that major components of Fielding's operational curriculum were skills and attitudes associated with self-confidence and presentation of self in group contexts. The isolation of this regularity occurred rather late in our interpretative process. It came only after we had fairly complete descriptions of content strands and instructional characteristics in subject areas such as reading, language arts, social studies, science, and creative arts.

As we examined learning tasks or activities across both subjects and grades, we found student presentations to larger groups a recurrent expectation. Instances of individual reading and recitation to groups, presentations of compositions, leading discussions, and demonstrations of art and dance projects were regularities of student performance. The strength of the regularity was more noticeable across the subjects and grades than for any single subject or grade. What attracted our attention to this consistency of practice was the regular musical and dramatic performances by each grade-group of students each year.

For each holiday and for special occasions such as parents and grandparents days, each grade participated in a musical concert. In addition, beginning with second grade, each grade presented an abridged form of a Broadway musical or dramatic production to parents and the student body each year. Usually an hour or more in length, complex productions such as "Mary Poppins" or "Tom Sawyer" were presented. From production to production over the grades, the casts were altered so that students rotated between secondary and primary roles. Discussions of these productions in terms of learnings encouraged led team members to note the regularity of concern for self-confidence, verbal communication/articulation, and responsibility of the individual student to the group. As we reexamined learning tasks across subject categories with these regularities in mind, we found them recapitulated throughout the academic program. This process of reconceptualizing figure/ground relationships was characteristic of our interpretative process.

It should be obvious at this point that the essence of our group deliberations are denotatively describable only through examples of the process in action. At the general level, the procedures which the group operationalized can only be broadly and vaguely sketched. We did not follow a discrete set of steps or a particularistic formula. In moving from focal questions to gathering/organizing information to offering interpretations of meaning we were guided by the test of what seemed to be reasonable. Ultimately, it was the team's agreement of what seemed reasonable which guided our process of inquiry and the

products of our deliberations.

FINDINGS AND INTERPRETATIONS

Actual engagement with Fielding School began with a meeting between the teaching staff and the analysis team in early October. The purposes of the meeting were to explain how we conceived our task, the descriptive rather than evaluative nature of it, and to offer opportunity for teachers to raise questions and suggest ideas. In the week following the general meeting, each investigator conducted an individual interview with teachers to whom he was assigned. Subsequent to the interviews, team members initiated the collection of information according to categories outlined in the previous section.

What follows is a report of team findings and interpretations. To encourage clarity of understanding, the report is divided into sections: summary of initial interviews, program content, instructional characteristics, and climate. Presented throughout the sections are conclusions about the knowledge, skills, and attitudes which are, in the aggregate, Fielding's operational curriculum.

Summary of Initial Interviews

Although the individual interviews were planned primarily to reduce anxiety and establish rapport between investigators and teachers, the commonality among responses provided some early cues to the coherence of Fielding's environment. Despite some discrepancies between our findings and teacher perceptions, overall, teacher generalizations about the general elements of the school fabric were notably consistent and accurate. Common to each interview were three questions: what makes Fielding a good place to teach?; what makes Fielding a good place for students and learning?; and, what are the major goals for student learning?

The responses to questions which addressed what makes Fielding a good place to teach and a good place for learning were remarkably consistent among those interviewed. Given our assumptions about schools as coherent sub-cultures, some overlap might be expected. But, we found that for most responses the degree of similarity approached unanimity. This was not expected, if for no other reasons than the questions were open, individuals would be perceiving from different frames of reference, and that the socialization mechanisms operating in any organization are less than perfect in their consequences.

We also found that there was overlap between perceived features which made Fielding a good place to teach and which made it a good place in which to be a student. Although a few features were specific to each question, most were applicable to both. The pattern of response to these questions fell into six dimensions:

1. Supportive and warm environment.
2. Freedom, autonomy, and flexibility.
3. Sense of order and structure.
4. Focus on individual and high expectations.
5. Consistency of school, home, and student expectations.
6. Smallness of Fielding and of individual classes.

While these dimensions were seen as interrelated, they are reported as separate categories for the sake of simplicity and clarity.

The first dimension, reported by virtually everyone, was the warm, suppportive, and cooperative spirit which was seen to characterize Fielding. Relationships between the headmaster, teachers, and students were identified as informal, caring, and positive. Such terms as "happy place," "family feeling," and "congenial" were used to convey a sense of the environment. Working relationships and communication between teachers and between the headmaster and teachers were iterated in each interview. That these were consistent and continuous was strongly emphasized as was the view that relationships were informal rather than being the product of bureaucratic structures and mandates.

The second dimension of positive characteristics was the freedom and flexibility that teachers perceived. Teachers felt that they had great latitude to make instructional decisions about learning activities and materials. There was an undercurrent of concern about preparing students for the next grade or grades. This seemed especially true for "academic" learnings or sequences of skills such as math, reading, and writing. There seemed to be much less perceived pressure on preparing students for subsequent grades in areas other than academic skills.

Order, stability, and structure was a third dimension of positive characteristics identified by teachers. What seemed to be communicated was that within concerns for fostering flexibility, attention to the individual, and general caring for students, teachers and the headmaster at Fielding maintained an environment which communicated stability. This was not seen, however, as equivalent to punitiveness or strictness. Expectations for student behavior tended to be perceived as similar among the faculty as was the perception that those expectations were communciated in most settings. For the most part, these expectations were informally shared and applied instead of being encoded as formal rules systems and bureaucratically applied. That this feature of Fielding contributed to a sense of stability and security for students was seen as a positive attribute of the setting for students as well as teachers.

Focus on the individual student, rather than just students collectively, and high expectations for individual performance was a fourth identified feature. There was a strong suggestion

that high expectations for student performance in terms of academic learning and more general behavior was shared among the faculty. Emphasis was given, however, to expectations being influenced by specific characteristics of each child. Comments were offered about the flexibility of expectations, learning activities, and instructional grouping as being based on the differences among students. Examples of provisions for students of differing ability and interests were offered. What seemed to be emphasized was the holding of high expectations for student performance, but that the specific nature of those expectations was influenced by the nature of each child. This observation was seen as consistent with those associated with flexibility, warmth of relationships, and communication mentioned previously.

The pattern of student characteristics and student-home characteristics constituted a fifth positive feature of teaching and learning at Fielding. Generally, students were viewed as highly motivated and able. Some noted that there were few discipline problems. What seemed to be of focus was the congruency of values between those of the faculty and those manifested by the students. Although there were a couple of statements about the "homogeneity" of student motives and behavioral propensities as negative factors, for the most part comments about the similarity of pattern were referenced in the positive. Supportive home environments was also widely noted. What seemed to be emphasized were the values attached to school learning manifested in most student's homes. Parental interest and involvement in the school environment were also noted and were consistent with the observations about student values.

The smallness of Fielding and the small size of classes was a sixth dimension of positive characteristics iterated by most teachers. Frequently these observations were offered in the context of noting the informality, interpersonal sharing and support, concern for the individual, and flexibility of practices at Fielding. Often, smallness was mentioned in the same breadth with "family feelings," "we work so very well together," and statements that teachers are concerned with the whole student and not just his academic progress and success. The connection between size and individual attention, a warm and caring environment, student participation, academic progress, flexibility, and stability was emphasized by the faculty.

Specific responses offered to the question, "what are the goals for student learning?" tended to vary more from respondent to respondent. Even so, patterns of response were easily noted and were categorized as enjoyment of Fielding, academic success and progress, interpersonal learnings and success, thinking skills, and growth of personal confidence and self-direction. It was noted as well that earlier identifications of positive attributes of Fielding foreshadowed many stated goals for learning. In other words, consistency of responses across questions occurred.

Consistent with the perceived warm, supportive climate of

Fielding was the goal that students find their experiences enjoyable. Teachers of the early and middle grades, particularly, indicated as important that students enjoy Fielding as a "family environment," a good place to be, and that they enjoy the many opportunities to "inquire." Of emphasis as well was the goal that students come to value and enjoy subjects or areas of academic learning included at Fielding. While some teachers noted skills and knowledge of written expression and verbal expression as areas to be enjoyed, others focused on reading and literature or social studies or science. Despite the variance among teachers on what academic skills or subject matters were to be enjoyed, enjoyment of academics was a common thread of response.

Related to enjoyment as a goal was that of students' achieving academic success and progress. Such was seen as particularly important in the areas of reading, grammar, composition/written expression, verbal expression, handwriting, and vocabularly/spelling. While student preparedness for subsequent grades was a concern mentioned by a few teachers, most emphasized that students learn to value academic learnings and to progress at a pace which was rapid, but individually determined. Responses represented a mixture of attention to individual needs and abilities as a basis for expectations and, at the same time, to expectations for performance that were more institutionally defined. In a sense, teachers seemed to be saying that while there were institutional expections for what should be learned and how fast, certain variations, due to individiual difference, were expected and accepted. Enjoyment of and success in academics was, however, a goal consistently reported.

Success and enjoyment related to interpersonal skills was another major goal identified. References were made to the importance of interpersonal sensitivity, cooperation, working together, relationships among students, listening to others, sharing, and social skills. Despite the variety among the specific responses, agreement on the importance of interpersonal skills and values were strong.

Strong agreement was also seen for the goal of thinking or problem-solving skills. This was particularly of emphasis among the teachers of middle and upper grades at Fielding. Learning how to make and justify decisions and the skills of reasoning were consistently mentioned as important goals. Responses indicated expectations that such skills were to be encouraged not only in individual assignments or projects, but were to be fostered in classroom questioning and discussions as well. Indeed, importance was attached to "public" demonstrations of thinking or problem-solving skills and that students be encouraged to both respond and defend the logic of their response in classroom discussions.

In addition, teachers identified the fostering of a sense of confidence and competence on the part of students as a critical goal. This seemed to mean more than students' succeeding in the

programs at Fielding. The concern was that students develop self-esteem and a confidence in themselves as individual members of the school environment. Specific illustrations of this general goal varied among teachers. Some provided examples of encouraging students to perform in various aspects of the arts, to participate in assembly programs, and to display projects. Other references were made to encouraging students to take leadership roles in class and extra-class settings, to defend ideas and positions in discussions, and to develop a sense of self-direction and responsibility. While the specific examples were varied, the common thread integrating them was the intention that students develop a confidence in their competence in academic and social skills. That this was strongly tied to performance opportunities rather than just lecturing was particularly emphasized.

Program Content

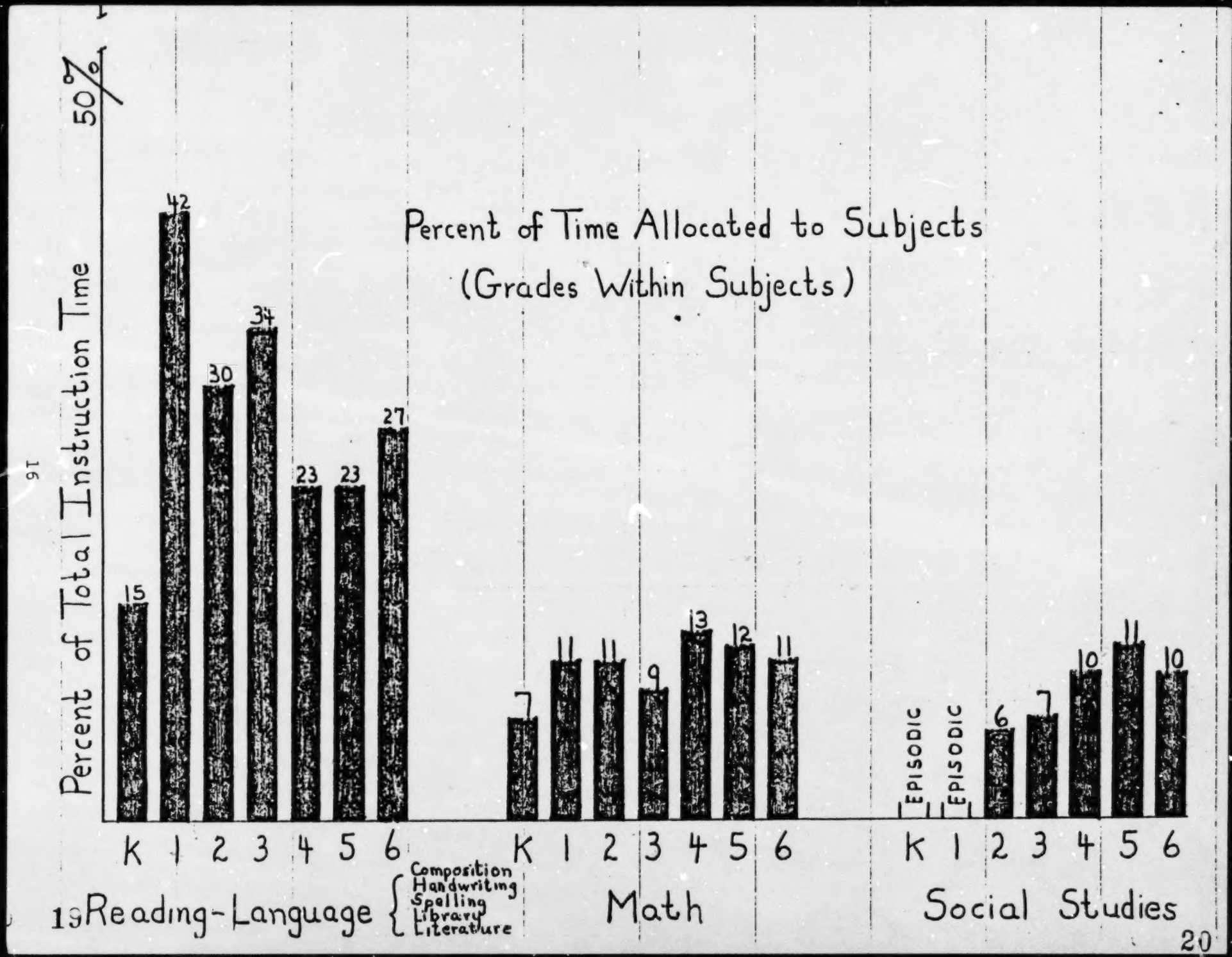
The content structure of Fielding was the product of a descriptive analysis of time allocations to subjects, instructional materials, learning activities, assignments, and informal discussions with teachers. Because time allocations offer insight into the emphasis given to each subject, we began with a graphic summary of relative time allocations by subject. The time allocation graphs on the following pages are presented by subject reported for each grade. The preschool was omitted since its organizational structure was not built on class/subject periods. Generalizations that are discussed below, however, also apply to the preschool and its relation to the overall Fielding curriculum.

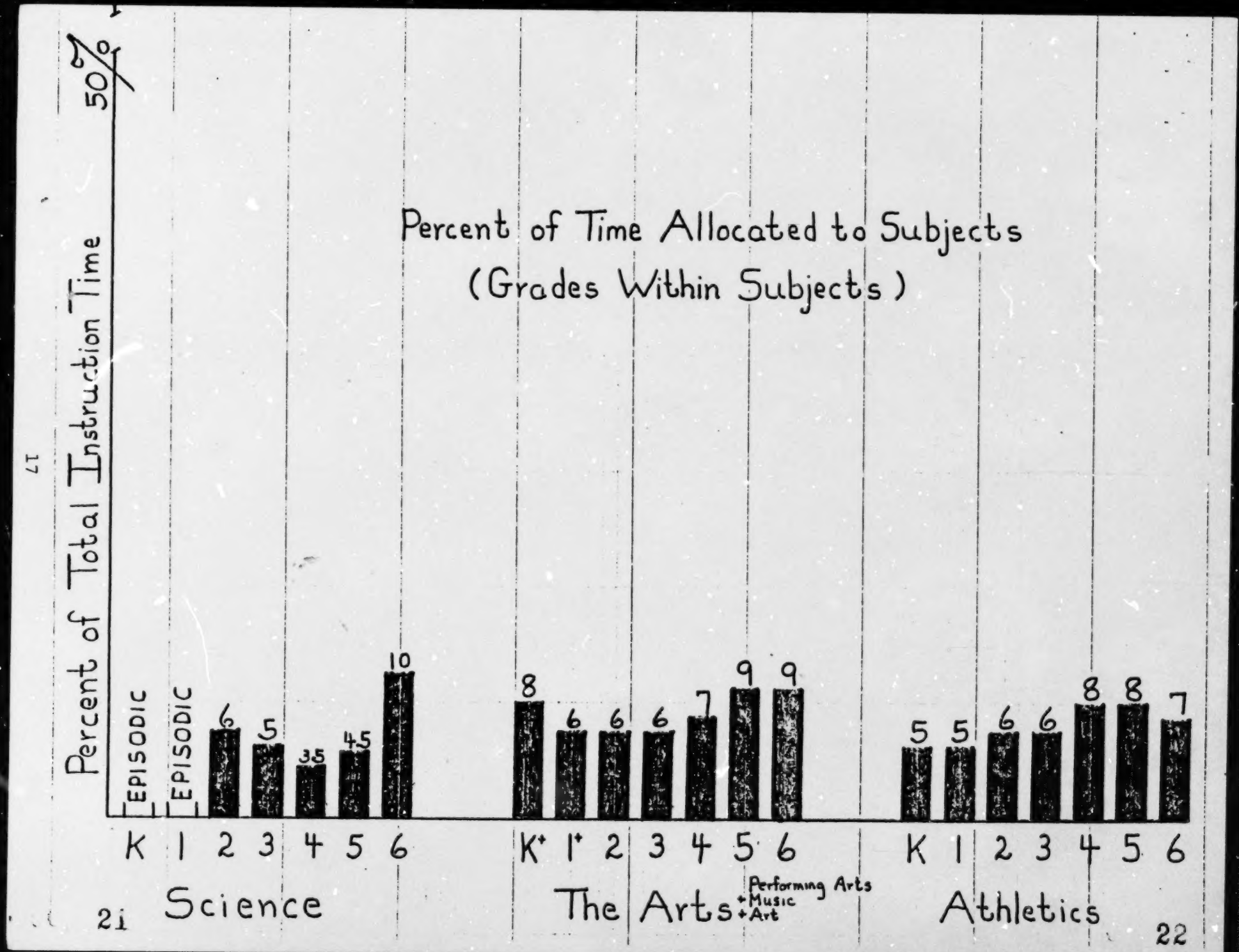
As a whole, the curricular emphasis at Fielding can be described as traditional, college preparatory in the major academic subjects. A young scholar is defined as one who reads well, knows proper punctuation, speaks and writes by a standard grammar, knows how to do arithmetic, and is familiar with the names and terms of history and basic science. Major emphasis, for instance, is given to verbal ability in all classes. Students are provided many opportunities to express themselves orally as well as through the use of the written word. The fact that the arts are part of the standard course offerings attests to the value placed on this as well.

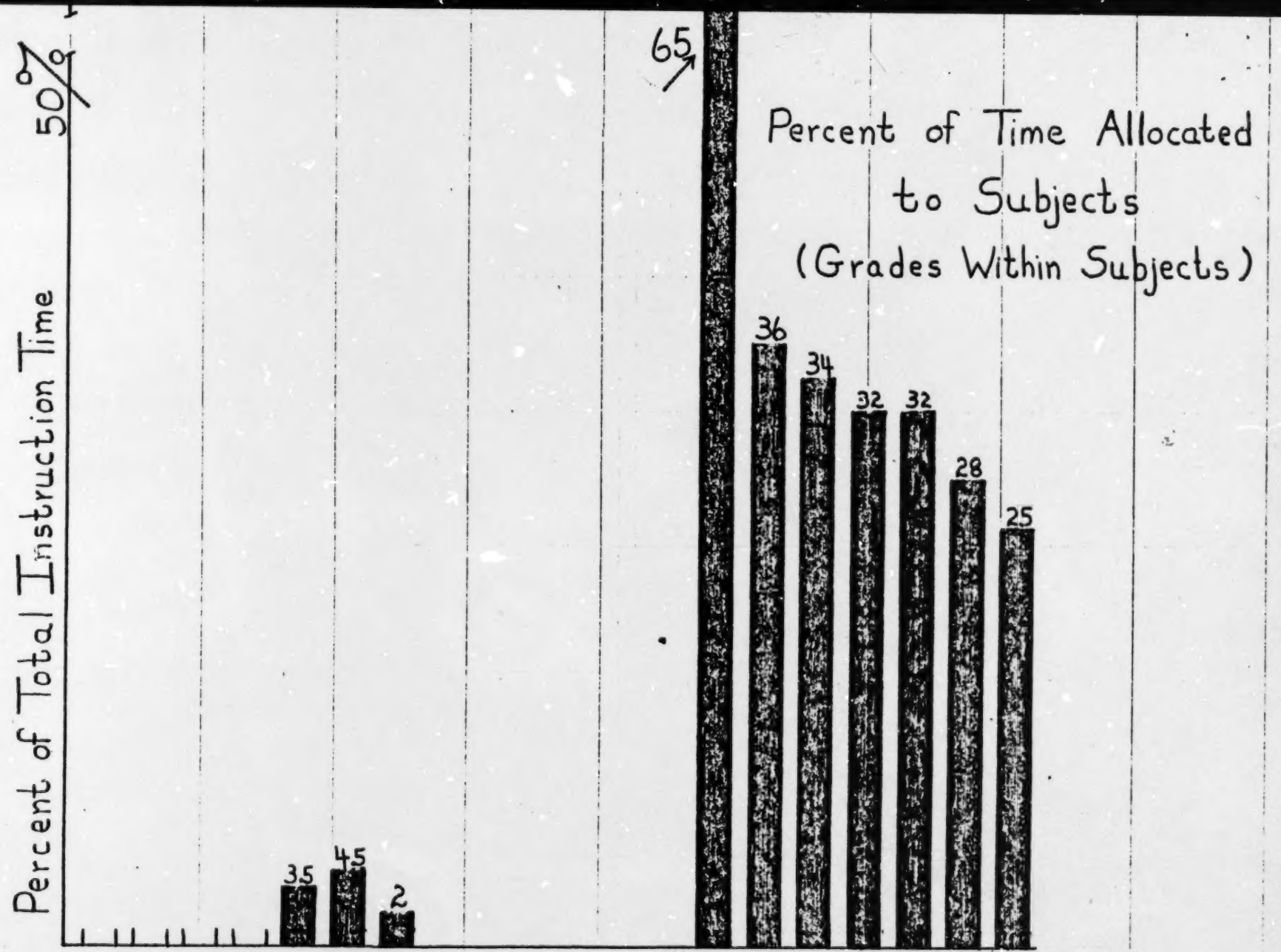
Although a broad scope of subjects is offered, two characteristics of the curriculum predominate. First, almost 100% of the school day is teacher planned and directed. Opportunities for student initiated activities appear infrequently. Second, organization appears to be episodic. With respect to integration of content between grades, language-related subjects and math seem to follow an ordered set of objectives as the student moves upward. Limited patterns could be found from one grade to the next, however, for objectives and activities in science, social studies, and the arts. Integration of content between subjects within one grade level occurs more

frequently in the lower grades in which classes are self-contained. This integration is less apparent in the upper grades where subject areas are compartmentalized and a student encounters many different teachers.

The remainder of this section is divided according to the following subject areas: language (reading, language arts/English), math, science, social studies, and the arts (performing arts, music, and art). No observations were made of the physical education classes, although the time allocations are included in the graphs. The category listed as "Other" on those graphs does not fit into any specific content area. Generalizations made about what is fostered during these periods may be found in the "Climate" section of the descriptive analysis.


Percent of Time Allocated to Subjects
(Grades Within Subjects)
Percent of Total Instruction Time
50%
15
42
30
34
23
23
27
7
11
11
9
13
12
11
EPISODIC
EPISODIC
6
7
10
11
10
K 1 2 3 4 5 6
K 1 2 3 4 5 6
K 1 2 3 4 5 6
Reading-Language
Composition
Handwriting
Spelling
Library
Literature
Math
Social Studies


Percent of Time Allocated to Subjects
(Grades Within Subjects)
Percent of Total Instruction Time
50%
EPISODIC
EPISODIC
6
5
3.5
4.5
10
8
6
6
6
7
9
9
5
5
6
6
8
8
7
K 1 2 3 4 5 6
K* 1* 2 3 4 5 6
K 1 2 3 4 5 6
Science
The Arts
Performing Arts
+Music
+Art
Athletics


Percent of Total Instruction Time
50%
65
Percent of Time Allocated to Subjects (Grades Within Subjects)
35
45
2
36
34
32
32
28
25
K 1 2 3 4 5 6
K* 1* 2 3 4 5 6
Electives
Other
Assembly
Opening Exercises
Time between Class
Recess
Lunch
+ Includes subjects that are episodic

LANGUAGE

General curricular goals in the area of language at Fielding offer the hope that students will learn to "read well," "write well," and "speak well." At Fielding language is important. It is an area of primary emphasis at each grade level. Students at the school experience language directly through the study of reading, language arts, English, spelling, composition, and penmanship. If these subjects are grouped into one large inclusive category, an average Fielding student spends approximately 30% of his or her school time in these language-related subjects. Time allocations to subjects are not accidental. They reflect the values and educational philosophy of Fielding. They show what is considered important. These language subject areas are intertwined throughout the actual curriculum at Fielding. For the sake of clarity, however, they will be reported here as separate categories.

READING

Reading begins for Fielding students at the preschool level with introductory decoding skills: letter and sound association, blends of sounds, simple word recognition, and recognition of simple sentences. The teaching of reading in the kindergarten and first grades emphasizes a phonetics approach. These classes are self-contained, each with their own teacher. Texts for the first grades follow the Lippincott basic reading series, books A, B, C, D, (and E for the enriched class). A Houghton Mifflin basal series is introduced in the second grade and its use continues through grade five--books A, B, C, D. From grades one through five, students are grouped according to reading ability and therefore are paced differently. All students, however, proceed eventually through the same basic materials. Most of these reading groups remain fairly consistent with very few extreme cases being observed (e.g., a fifth grader on a second grade level or a second grader reading on a fifth grade level).

Students experience a great deal of oral reading in the first and second grades. Silent reading becomes more predominant beginning in the third grade. On all levels, students are regularly exposed to and involved with a large variety of reading materials and are provided with an extensive amount of reading experience. Particularly with grades two, three, and four, there apears to be a heavy emphasis on texts, dittoed pages, workbooks, and other printed materials. Reading comprehension is also important. Students on all levels are drilled in understanding, perceiving, grasping, and knowing what has been read. Performance in daily classwork, as well as on tests and quizzes, is emphasized in reading experience.

Although reading as a subject involves a wide variety of subject categories and may incorporate various teaching methods, five clearly discernable strands or areas of emphasis appear and run through all of the grade levels. Decoding is learning the

actual mechanisms of how to read; how to look at a line or page of printed verbal symbols and understand what they mean. This begins in preschool with letter/sound recognition and association, blends of sounds, simple word recognition, and continues as a major emphasis through the third grade and into the fourth grade for some students. Decoding assumes a largely phonics approach, especially in kindergarten and first grade. At the end of third grade, students generally have mastered the basics of decoding. They are able to read. This strand, then, slowly becomes less emphasized and graduates into a related strand called reference/study skills. A general definition of the character of reading from preschool to third/fourth grade at Fielding could be: "learning to read," whereas from grades three/four through six the emphasis evolves into: "reading to learn."

A second reading strand relates to reference/study skills. This refers to the ability to use reading tools and skills in order to gain more knowledge or insight into any area of study. It would include the use of reference materials such as dictionairies, indices, tables of content, encyclopedias, the library itself, as well as atlases, almanacs, maps, charts, and graphs. Reference/study skills, as a strand of the reading curriculum, begins in earnest in the third and fourth grades and continues through the sixth grade. It is of interest to note that in teaching reading, students are largely taught about reference/study skills. They are taught how to use a dictionary or how to use an encyclopedia. Actual application of these skills is fourd in other subjects such as science, English and social studies where students are asked to work on reports, themes, research papers, or other assignments that require them to put their reference/study skills into practice.

Comprehension, the third reading strand, is the ability to recall what has been read or heard, to extract the major ideas or characters or plot development, and to sequence them. It is the ability to understand, grasp, gain insight into, and perceive what has been read or heard. Reading comprehension receives concentrated classroom emphasis on all levels, from preschool to sixth grade. In lower grades (preschool to three/four) this is often interpreted as a precisely defined, concrete set of skills in which each student is thoroughly drilled. At the upper levels (three/four through six), comprehension involves broader and finer categories of literary perception and changes from the workbook activities and dittoed-page exercises which is characteristic of the lower grades. As students move upward through the grades there is an evolution of what reading comprehension means. Thus, the idea of comprehension changes from recalling the number of bunnies in a story on the preschool level to recognizing, interpreting, and enjoying a well-turned simile or pun by the fifth and sixth grades. On all levels, however, reading comprehension appears to be important.

Vocabulary, the fourth strand, is defined at Fielding as the ability to recognize and understand a broad spectrum of words in

spoken or printed context, and the ability to express oneself well with a rich resource of words. Beginning in grades four and five, students use a separate vocabulary workbook that stresses meanings, usage, and spelling. Vocabulary, as a strand, occurs even at the preschool level with the reading of stories to children. There appears to be three general sources of words for vocabulary study: lists of words and exercises in vocabulary workbooks; from words encountered by students in various subjects such as technical terms; and words encountered in daily reading, discussions, teaching, the media, the arts, etc. Along with the concept of vocabulary itself as word mastery and use, students also are given many opportunities to learn to express themselves well in oral communication, to state opinions, and to speak in groups. Clear, confident, oral expression is valued and stressed throughout the school day across grade levels.

Literature constitutes the fifth major reading strand. At every grade level, students are exposed to longer reading selections which supplement the basal texts and workbooks. These selections are generally children's stories, classics or paperback novelettes. They include such titles as: The Witch Next Door, The Littles, The Trumpet of the Swan, Little House on the Prairie, Island of the Blue Dolphin, The Pearl, and McBeth. There are generally from two to six of these readings per school year at each grade level. It is important to note in considering the emphasis given to reading that in sixth grade, there are two separate subjects devoted to it, "Reading" and "Literature." Special effort is made in all grades to expose students to selected, classic, literary pieces. The purpose of this exposure appears to be for the sake of reading appreciation, enjoyment, experience in handling longer reading selections, and in the higher grades, recognition and interpretation of literary devices.

LANGUAGE ARTS

English or Language Arts at Fielding can be divided into four strands or areas of emphasis: grammar, composition, spelling, and penmanship. At the lower grades, where the same individual teaches all language-related subjects, there is some integration of these four strands. At the upper grade levels, however, there is a greater tendency to present the strands as discrete areas.

Grammar, as a strand, involves familiarity with word meanings and simple sentences. This begins at the preschool level and continues into the kindergarten and first grade. In preschool, and through the first two or three grades, Language Arts and reading are grouped into a decoding, grammar, spelling, penmanship, and composition block. Grammar, as a distinct area of study begins in the second grade with a concentration on kinds of sentences, basic sentence parts, proper word usage, capitalization, and punctuation. From this, the grammar strand develops into the study of correct sentence structure,

relationships among parts of sentences, parts of speech, proper usage, and punctuation. These concepts are repeated, refined, and expanded each year up through the sixth grade. The major classroom activities in all grades center on workbook or printed exercises. Students are exposed to a concentration of printed materials in a variety of forms ranging from text/workbook pages or dittoed sheets to puzzles, games, and other activities. What could be termed a traditional, drill-recitation approach to the teaching of grammar is prevalent with students being exposed to a sequenced study of grammar where great stress is placed on demonstrating mastery of each part. A major emphasis is on comprehension, knowledge and memory of correct grammatical usage. Although sentences are regularly analyzed for correct structure and usage, diagramming of sentences as a distinct exercise is not frequently employed. In the teaching of grammar there is usually one correct or best way based on traditional usage, and students are expected to learn and follow this one proper way. Regular evaluation of student work is accomplished through daily homework assignments and classwork. Tests and quizzes are frequently given.

The spelling strand, as a part of Language Arts, begins at the preschool level with word recognition. Children are not required to spell words but are encouraged to become familiar with their configuration. Vocabulary building, word acquisition, and correct word usage is spoken as well as written language, are encouraged in all grades. From the first grade, spelling is taught as a separate subject, although there is a decline in emphasis at grade six. In general, students are given a list of words each week and are expected to be able to spell them, pronounce them, define them, and use them. In addition to teaching spelling as a separate subject, some teachers also incorporate spelling with other subjects such as math, social studies, reading or science.

Penmanship taught as a separate strand in grades one through three; after the third grade clear, legible script and proper letter formation are stressed. Students in kindergarten and the first grade begin with printing. In the second grade, they learn connected cursive script although in daily second grade school work, they are still allowed to print. The use of cursive script begins at the third grade. Neatness, spacing, proper margins, legibility and similar emphases are consistently stressed.

The fourth strand of language arts, composition, begins at the first grade where students are taught to recognize sentences, to write sentences, and then to expand their written expression into larger units. In the first grade, advanced classes are encouraged to write their own short stories, perhaps a paragraph in length. In the upper grades, emphasis is given both to creative writing and to assigned compositions relating to other academic subjects. In some classrooms students keep daily logs or journals as an exercise in creative writing. Book reports, short themes, and research reports begin by the third and fourth grades. In the primary grades, where one teacher has the same

group of students for most subjects, there appears to be a closer integration of Language Arts with other subjects through the writing of small compositions. At the upper grades this integration between Language Arts subjects and other subjects is less apparent. Students, however, are given many opportunities to write papers on various topics throughout the school year.

Where students are grouped according to ability, they generally use the same textual materials. Advanced groups go more deeply and thoroughly into the materials, exploring techniques of style and form, while average groups adhere more to learning the mechanics of language use and composition.

MATHEMATICS

For Fielding, mathematics is second only to the reading-language arts area in the amount of time allotted it. The program is characterized by seven major learning strands: addition, subtraction, multiplication, division, fractions, measurement, and geometry. Each strand is sequentially developed from knowledge and understanding of mathematical terms and skills to the application of these in more complex situations. Mathematical knowledge and skills are most strongly emphasized in the preschool/kindergarten through third grade while there is an evolving tendency toward understanding and application at the upper-grade levels. A look at the learning strands allows one to see the major mathematical concepts presented at each grade level. The emphasis throughout is on positive numbers up to the sixth grade when negative numbers are introduced.

Addition and subtraction begin in preschool/kindergarten with initial math readiness through visual recognition. Students identify the numerals 0-10 and match each with its appropriate number. The joining and separating of these sets introduce the concepts of addition and subtraction. By first grade, whole number addition and subtraction progress through facts to 20 with no carrying or renaming (borrowing). Second graders work up to three-digit addition and subtraction with both carrying and renaming, while third through sixth graders continue to maintain the skills by adding digits and the number of addends.

Multiplication and division of whole numbers begin in the second and third grades with the family of facts through 12. Multiplication develops from one factor by one factor through four factors by one factor. Division will use one digit divisors with remainders. Grades four through six extend these skills using multiple-digit factors, divisors and dividends.

Although fractions are introduced about the same time as multiplication and division (grade three uses a separate fraction workbook), it isn't until fourth grade that they are highly emphasized. Students move through the operations of addition and subtraction first with common denominators, followed by different denominators. Multiplication, division, and mixed numerals

follow in sequence. Sixth grade continues to review and extend not only the basic operations but also emphasizes continued work with decimals and percents.

The measurement strand is not developed in as rigorous a manner as the preceeding ones. Measurement begins in the kindergarten through third grade with simple comparisons in length and size. Time and money concepts are added in grade one. These concepts continue to be expanded along with some measurements of capacity through the grades. Although the metric system is introduced early, it isn't until the fifth grade that a two-week time period is wholly devoted to it. Sixth grade does some review. Conversion between measurement systems seems to be avoided and preference is to stress the relationship among metric units.

Of all the learning strands, geometry is most episodic. Pre-geometry skills are seen in the preschool/kindergarten where students learn to recognize and discriminate among simple shapes (circle, square, triangle). First and second grades, primarily, develop concepts (point, line, curve) and corresponding vocabulary. As with fractions, grade three places a special emphasis on geometry through the use of a separate workbook. A systematic inclusion of geometry is seen at grades four and five and stresses computation of perimeter, area, circumference and volume. Sixth grade continues to do more involved computation.

Problem-solving (word problems) is not considered as a separate strand since it was found to be an integral part of all the other ones. Problem-solving is introduced early in first grade and requires the use of only one (addition or subtraction) mathematical operation at a time for its solution. This skill is reinforced consistently through the grades with the addition of the other mathematical operations including multiplication and division. Multi-step problem-solving was observed at the sixth grade level in an introduction to algebraic methods using equations to solve problems including fractions, decimals and percents.

With the exception of the sixth grade, all classrooms use one or more major text and, if there is one, its corresponding workbook. All major texts are heavily supplemented by additional workbooks and both commercial and teacher-made dittoes. Teacher-made dittoes are the primary "text" for the sixth grade. Preschool through grade three utilize commercial, teacher-made, and black-board games (Bingo, auctions, puzzles) along with manipulable materials for better visualization and hands-on experiences (coins for understanding money, number line taped to desks).

Almost all math activities are teacher-directed. The general procedure, observed across grade levels, is for the teacher to introduce new or review old material, interact with the students on it (explain and illustrate it, answer student questions and clarify any misunderstandings), and then provide an

opportunity for the student to interact independently with the material. Most often this is done by the teacher making an assignment and allowing time for the student to at least begin the exercise while the teacher is present.

Actual math exercises are primarily paper and pencil practice (workbook, ditto) of the skill or concept being studied. Math homework is normally given beginning in the second grade and may be another exercise corresponding to the daily lesson or time to complete unfinished class work. There does not appear to be a consistent rationale for having homework nor for the amount (number of problems, length of time) thought to be appropriate.

Generally, everyone in a given math class is taught the same lesson and given the same type and amount of assignments. Since almost all math classes move through the material as a group, differences in ability seem to be accommodated by assignment to a particular class at the beginning of the year. The criteria for such assignments is usually standardized test scores and teacher input.

Grade one accommodates its more capable students by a faster pacing, moving them from book 1 to book 2 sooner. Grades four and five increase the volume of experience for their more able students, placing them at a higher level of material (use of texts from more advanced grade levels) and having them spend less time on reviewing (while the average student reviews addition for four days, they will spend only two). Sixth grade provides a higher level of sophistication in the complexity of problems presented.

Since almost all math work is objective in nature resulting in a correct or incorrect answer, evaluation is fairly concrete. In most cases students receive daily feedback through group correction of either homework or class exercises. Testing is a regular and cumulative procedure in math. Quizzes (some timed), commercial and teacher-made tests, homework along with daily participation, and assignments provide the basis for grades.

Fielding's mathematical program fosters proficiency (time and accuracy) in functional math skills and concepts with special emphasis on the skill of problem solving. At the sixth grade level, this mastery, supplemented by the process of reasoning or justifying one's work, is another building block towards self-confidence. Competition is fostered, but it is limited to their work within units because students move from unit to unit as a group.

SOCIAL STUDIES

An analysis of the social studies program at Fielding led to the conclusion that it is the most amorphous of the subject areas. Considering the literature which describes the characteristics of elementary social studies nationwide, this is

hardly surprising. Traditionally, social studies has been viewed as that area of the curriculum which shoulders the primary responsibility for promoting responsible citizenship in a democratic society. Consensus, however, generally stops here. Competing conceptualizations of how to attain this ambiguous, but lofty goal, abound.

What is social studies at Fielding School? An analysis of the content leads to the formation of several generalizations. Few conceptual or organizing threads tie the program together across the grades. Social studies learnings center on facts about people and places as well as the terms or vocabulary of history and geography. An analysis of tests and quizzes suggests that factual knowledge is of emphasis.

The most obvious thread in social studies was an emphasis on map and globe skills. These skills were taught both as separate units and in the context of other topics being considered. Our analysis did not establish that these skills were developed in a sequential manner across grades. Other information acquisition and process skills which received rather uneven emphasis include: reading, outlining, note-taking, and reference skills. The topics and themes of social studies largely parallel the content of the Allyn and Bacon textbook series. The program is, in fact, primarily textbook-centered. The following topics and skills were identified as receving major emphasis.

Grade	Topic	Skill
pre-school	largely eposodic	
kindergarten	holidays family occupations	
1st	famous explorers and discoverers	map and globe
2nd	communities Eskimo culture	map and globe
3rd	American colonization western expansion	map and globe
4th	agriculture Civil War regional geography (wheat and rice regions)	map and globe
5th	ancient history (Sumeria, Egypt, Greece, Rome)	map and globe
6th	revolution (American and French) change (Renaissance and Reformation) European geography	

Just as the textbook largely determined the content, it was the dominant instructional tool. The students were frequently engaged in reading the text, listening to the text read, and

discussing the content of the text. An accompanying workbook was also used in a number of the classrooms. Although there were some notable exceptions to these instructional techniques (role playing, simulations, and gaming; the use of novels; the keeping of journals; reports and term papers) no recurring patterns were uncovered. Lecture was also used, but not extensively in most grades.

History and geography dominate social studies at Fielding School. History is primarily focused on ancient civilizations and early American history. Geography is slightly more global, but the focus is predominately on the West and the United States; there is little on a more global or world community perspective. The major identifiable strand, and possible the only one which spans the grades, is the development of map and globe skills. There was little evidence of emphasis on the learning of concepts or intellectual skills such as hypothesizing, analyzing, comparing and contrasting, drawing conclusions, or generalizing.

In conclusion, social studies appears to be highly fragmented and diffused with little sequence between grades. It is primarily taught as a separate subject with little content interface with other subjects. Skills of verbal and written communication are fostered and reinforced through regular assignments requiring the organization and presentation of reports. Feedback to students on these assignments is as much on skills of composition and elements of style as it is on substantive content. In this regard, social studies served as a vehicle for reinforcing learning of focus in the reading/language arts subjects. From grades two through six, the sequence of assignment complexity parallels the sequence of communication skills fostered in language arts/English rather than in terms of complexity of social studies content.

SCIENCE

Structured time for science begins in the second grade, where it is taught by the homeroom teacher. In grades three through six, science is taught by a teacher for whom it is the major assignment. Far less time is allocated to science than to language/reading and mathematics and, with the exception of grades two and six, it is less than that allocated to social studies, art, and atheletics.

In each of the grades science content is planned and delivered as self-contained units with limited relationship among them within and between grades. For example, in grade three unit topics include categories of animals, electricity, and magnetism and in grade four they involve plant structure, sound, and weather/climate. In grade six, the cell, microscopes, human body, and energy are focal units. While the emphasis on tests, quizzes, and homework assignments is on facts, terms, and memorized definitions of concepts, classroom activities tend to focus on teacher questions and class discussions which call for students to see relationships among ideas and to apply ideas to

"what if" situations.

Although there are not content strands which serve to integrate science units, continuity is fostered in terms of classroom activities which emphasize information processing skills of observing, writing reports of observations, inferencing, and drawing implications from data. Such learning activities are reiterated across the grades in science. Since the content vehicles are not interrelated through the use of broad themes, questions, or concepts, the level of sophistication of inquiry skills which is fostered remains rather simple. Since there is not a fostering of cumulative learning in terms of science content, there is not base from which to plan for fostering sequential development of inquiry skills.

As with social studies, emphasis on written and verbal communication skills is obvious in the reports which students are regularly assigned and the oral presentations which are expected during most instructional units. Feedback on these assignments are as much focused on communication skills and style as on the quality of the content.

THE ARTS

The teachers in the pre-school and kindergarten classes generally design and implement their own arts program. The first through the third grades spend a forty-minute period in each art area (music, graphic, and performing) each week during the year. The fourth through the sixth grades are exposed to the three areas of art in intensive twelve-week periods. A special resource teacher is provided in each art area for the first through the sixth grades. Arts activities take place in a special location: art studio, music studio, dance room, auditorium, or stage area. Generally, the emphasis on the arts appears to have a three-fold rationale: to develop the "Renaissance person," to develop motor skills, and to develop an appreciation for the aesthetic.

For graphic arts, prior to the first grade, the purpose of art seems to be largely for motor skill development and for providing enjoyable free-choice activities in the school setting. Some of the activities are planned for the group; many are for expression of individual interests.

Beginning in grade one, children have a special art resource teacher. A sense of design (color, shape, line, form, pattern, and texture) is taught through such media as painting, coloring, drawing, ceramics, collage, mosaics, and posters. By grade three, students are using tempera, water colors, brushes, crayons, chalk, scissors, glue, colored paper, and clay. Through regular discussions evaluation by student, peers, and teacher, a sense of appreciation of art in the various media is fostered. In these earlier grades, the art teacher prepares major portions of the art forms on which children are to work in order to

delimit the scope of skill development. The projects usually have a seasonal emphasis.

In grades 4-6, there is a continuation of the design and motor skill development. Additional skills are added such as: mixing paints for a desired color; sharp, clean lines and colors; working within a time frame; and working with three dimensional objects. Activities include tie dyeing, using a color wheel, viewing contemporary sculpture, and reading about art. Although grades are reported for all, the emphasis seems to be on more informal evaluation by students, peers, and teachers.

In musical arts, prior to first grade, activities in music provide opportunities for enjoyment through dancing and singing, rather than being instructional activities. Starting at the first grade, music is taught by a special teacher. In the first three grades, music involves learning a sense of rhythm, reading musical notation, and using the voice as an instrument. Work toward performances occupies much of class time. Use of the melody flute is introduced in the third grade. These activities continue in the fourth grade along with the study of pitch, scales, intervals, and symbols. Instrumental and vocal performances are regularly scheduled for a variety of audiences. In grades five and six, there is a continuation of the study of notation and vocal music, and the recorder is introduced as a new instrument.

Our observations of performing arts were limited to grades 4-6 where it is taught in twelve-week blocks, four days each week, in 40-minute periods. The twelve weeks are divided into twelve units:

1. Mime
2. Clowing
3. Folk dance
4. Ballet
5. Modern dance
6. Jazz dance
7. Tap dance
8. Disco
9. Story telling
10. Poetry interpretation
11. Singing
12. Sign language

The following represents the nature of a typical unit in the performing arts as well as the type of learning activities involved:

Monday:	The art form is introduced by the teacher through lecture, demonstration, and discussion.
Tuesday:	The students practice skills involved with the art form and begin development of a skit.
Wednesday:	Performances are refined and presented to the class. The performances are critiqued by the teacher and other students.
Thursday:	Performances are presented by guest artists or the teacher. Occasionally selected students perform their more refined parts.

The students are organized into various groupings during the

phases of each weekly unit: individual, small groups, and large group. Although artistic merit is encouraged, it is not requisite to positive evaluations which appear to be consistent with the stated objectives of stimulating expression through the arts and an appreciation of them. The program could be described as broad in scope and limited in depth. This limited depth appears consistent with intended objectives.

Overall, the arts program at Fielding emphasizes performance rather than the development of technical skills or knowledge about music, graphic, or performing arts. This is reflected not only in the arts subjects, but it is reflected as well in the regularity with which individual and group performances are presented to students and parents. The students in each grade present musical performances prior to each of the major holidays. From second grade through grade six each grade group presents an abridged musical or dramatic production each year. These are lengthly, complex performances requiring extensive cooperation in planning the performance including practices, set design, and choreography. Over the years students rotate among major and minor roles so that all have opportunities to "star."

The valuing of performance seems strongly tied to goals of fostering student self-confidence, experience in presenting self to large groups, and skills of verbal articulation. These are important at Fielding and that importance is operationalized in learning activities that cut across all subject areas and grades, not just in the areas of the arts.

Instructional Characteristics

In analyzing the instructonal features of Fielding, we attended primarily to three dimensions: the types of grouping for instructon that teachers used, the types of activities that were used, and the cognitive level of these activities. Each of these analyses will be discussed in terms of the entire school and for each of the major subject areas.

Grouping for Instruction

Our analysis of grouping patterns involved five categories. The first consisted of large group activities in which students were involved together on the same task. This pattern would typically be used for lectures, for going over assignments or tests as a group and for discussing some topic as a class. The second category involved small group activities in which each group was doing the same task. Small group discussions on the same topic and projects in which small groups were all given the same assignment would typify this pattern. The third pattern of grouping was used to describe individual tasks where each individual's task was the same. Students' individually doing common exercises in a workbook would be an example of this category. The fourth category involved small groups where groups were doing different activities; and the fifth category involved

individual tasks where all individuals were not doing the same activity. Those situations in which groups or individuals were doing different tasks at some particular time, but would eventually all do the same set of tasks were categorized as 'same task'. Thus, the only situations classified as "multiple task" were those in which students or groups were doing some activity that not everyone else would eventually do.

Across all subjects and across all grades the most characteristic grouping patterns were large groups doing the same task and individuals doing the same task. The only exception to this was seen in the performing arts where large groups doing the same task was less characteristic. Small groups doing the same task was a pattern sometimes used in the performing arts, music, and art in the upper three grades. Small groups doing different tasks and individuals doing different tasks were patterns seldom used anywhere except in the performing arts.

Characteristic grouping patterns by subjects are summarized in the chart on the following page.

Types of Activities

In analyzing the types of instructional activities, we used nine general categories plus additional categories as they were needed. The general categories were:

1. reading: acquiring knowledge by reading printed resources;
2. listening: acquiring knowledge by listening to a lecture or explanation;
3. observing: acquiring knowledge by observing non-print resources;
4. reciting: acquiring knowledge by responding to questions at the recall or comprehension level;
5. discussing: acquiring knowledge by exchanging ideas and questions with other students;
6. drilling-practice: acquiring knowledge thorugh repeated applications;
7. role playing-simulating: acquiring knowledge by dramatizing situations or throughsituational games;
8. solving closed problems: acquiring knowledge by applying the appropriate

GROUPING PATTERNS BY SUBJECT

Summary Table

Characteristic Prevalence Across Grades

	-LARGE GROUP SMALL TASK	-SMALL GROUP SAME TASK	-INDIVIDUAL SAME TASK	-SMALL GROUP MULTIPLE TASK	-INDIVIDUAL MULTIPLE TASK
LANGUAGE ARTS	1	3	1	3	3
READING	1	3	1	3	3
MATH	1	3	1	3	3
SOCIAL STUDIES	1	2	a	3	3
SCIENCE	1	3	1	3	3[b]
PERFORMING ARTS	2	2	1	2	1
MUSIC	1	3[b]	2	3	3
ART	2	2	1	3	3

1=frequently involved in learning activities
2=occasionally involved in learning activities
3=seldom involved in learning activities

a=varies unsystematically across grades
b=more frequently used in upper grades

rules to solve a problem;

9. solving open problems: acquiring knowledge by solving a problem which could be solved in a number of different ways.

Both in-class and homework assignments and activities were analyzed to determine which types were most characteristic of instruction at Fielding.

We found it necessary to distinguish the traditional academic subjects from the arts in summarizing our analysis. Among the academic subjects the most prevalent modes of instruction were reading, listening, reciting, and drilling-practicing. We also found, starting around the fourth grade, a more frequent use of discussing and solving closed problems, although even at these grades they were only occasionally used. On the whole, observing, role-playing-simulating, and solving open problems were the least frequently used modes of instruction. Because the types of activities used were not common across the arts, no generalizations can really be made for those subjects. There were enough individual differences in all subjects, however, to warrant a summary within subject areas.

Within the two areas of language - language arts and reading - the most prevalent modes of instruction were reading, reciting, listening, and drilling-practicing. Observing, role playing-simulating, and solving open problems were seldom used in either area. Discussing and solving closed problems were occasionally used in reading, but seldom used in language arts. Creative writing was a separate category used for analyzing instruction in language arts and it was used at least occasionally across all grades.

The most characteristic types of instructional activities in math were listening, drilling-practicing, and, to some extent, reciting and solving closed problems. Reading was occasionally used across all grades; observing and, a special category added for math, manipulation, (working with concrete objects to develop math concepts), were used occasionally at the lower grades. Discussing and role playing-simulating were seldom used as modes of instruction in math.

The most characteristic modes of instruction in social studies were reading, listening, and reciting. Discussing and solving closed problems were occasionally used from grade three on. Role playing and solving open problems were seldom used at any grade; observing was occasionally used in two grades and seldom used in all others. Use of drilling-practicing ranged from frequent to seldom.

The most characteristic types of instructional activities in science were reading, listening, observing, and discussing. Closed problem solving was occasionally used in the upper grades;

role playing-simulating and open problem solving were seldom used at any grade. Reciting and drilling-practicing were occasionally noted.

Within the area of performing arts, we analyzed instruction only at grades four through six. In these, the most characteristic types of activities involved listening, observing, discussing, drilling-practicing, role playing-simulating, and solving open problems. In music the most characteristic types of activities were listening, observing, reciting, drilling-practicing, and a special category, performing. All other categories were either not used or not applicable to this analysis. In art the most characteristic types of activities were drilling-practicing and a special category, manipulation, which was defined as the basic application of techniques in art. Other types of activities that were used occasionally were listening, observing, discussing, and preparing a product for demonstration.

Cognitive Level

Because tasks differ in the level at which students are required to think in doing an activity, and because we consider this dimension of instruction to be equal in importance to the choice of content presented to students, we have included it in our analysis. We used the six categories of The Taxonomy of Educational Objectives: The Cognitive Domain[7] for our analysis. The six categories are:

1. Knowledge: acquiring and being able to recall information,
2. Comprehension: being able to translate some thought into one's own words or into another mode of communication,
3. Application: being able to use rules and information in new situations,
4. Analysis: being able to break down a complex piece into simpler elements,
5. Synthesis: being able to generate new ideas,
6. Evaluation: being able to critique something by comparing it to an appropriate standard.

Across all subjects and grades, the most characteristic cognitive levels at which students engaged in their activities were the knowledge and comprehension levels. Application was a prevalent level for some subjects at some grades, and analysis was occasionally involved in some subjects at some grades. The cognitive levels, synthesis and evaluation, were, in most subjects and grades, seldom a part of learning activities. There were enough differences, however, to warrant a summary by subjects.

Within the areas of reading and language arts, activities are generally at the levels of knowledge and comprehension. The

TYPES OF LEARNING ACTIVITIES BY SUBJECTS

Summary Table

Characteristic Prevalence Across Grades

	Reading	Listening	Observing	Reciting	Discussing	Drilling/Practicing	Role Playing	Solving Closed Problems	Solving Open Problems	Creative Writing	Performance/Demonstration	Manipulation
LANGUAGE ARTS	1	1	3	1	3	1	3	3	3	2	3	3
READING	1	1	3	1	2	1	3	2	3	3	3	3
MATH	2	1	2[c]	1	3	1	3	2[b]	3[b]	3	3	2[c]
SOCIAL STUDIES	1	1	a	1	2	a	3	3[c]	3	3	3	3
SCIENCE	1	1	1	a	1	2[c]	3	2	3	3	3	3
PERFORMING ARTS	3	1	1	3	1	1	1	2	1	3	3	3
MUSIC	2[b]	1	1	2[b]	3	1	3	3	3	3	1	3
ART	3	2	2	3	2	1	3	3	3	3	2	1

1: frequently used
2: occasionally used
3: seldom used or not applicable

a: varies unsystematically across grades
b: more frequently used in upper grades
c: less frequently used in upper grades

application level is characteristic of language arts, but ranges unsystematically from frequent to seldom across grades in reading. The analysis level is occasionally involved in activities in reading after grade one and in language arts after grade three. The synthesis and evaluation levels are occasionally involved in reading activities in two grades, but are seldom involved in other grades. In language arts, these last two levels are occasionally used at one grade and seldom used at others.

The most characteristic cognitive activities in math are knowledge, comprehension, and, after grade three, application. Analysis is occasionally involved after grade two; synthesis and evaluation are seldom involved at any grade except grade six where they are involved occasionally.

The only cognitive level characteristically involved in social studies activities across grades is knowledge. After grade five, comprehension is typically involved in activities, and application is occasionally involved in grades one through five. All other levels are seldom a part of students' learning activities.

The most characteristic cognitive levels involved in science activities are knowledge and comphrehension. At most grades, application and analysis are occasionally involved. The synthesis and evaluation levels are seldom involved in activities at any grade level.

In the area of the performing arts in grades four to six, application and analysis are the most characteristic levels of learning activities. All of the other four levels are occasionally involved. In music, the knowledge, comprehension, and application levels are most characteristic across grades; the analysis, synthesis, and evaluation levels are seldom used at any grade. In art, across all grades the knowledge, comprehension, and application levels are most characteristic. The analysis and synthesis levels are occasionally involved in learning activities after grade three, and the evaluation level is occasionally involved up to grade three, after which it is frequently involved. A summary of characteristic cognitive levels by subjects is given in the chart of the following page.

Climate

In our attempt to analyze and describe the curriculum of Fielding it became readily apparent that to focus our attention solely on the content and methods of the classroom (the formal or actual curriculum) would result in our ignoring many significant aspects of the learning environment. Such a narrow focus might even result in our missing the very essence of the school. From the initial stages of the project, it also became obvious that Fielding, indeed any school, served to encourage and possibly inculcate a set of values and norms which were seldom conscious

COGNITIVE LEVEL BY SUBJECTS

Summary Table

Characteristic Prevalence Across Grades

	Knowledge	Comprehension	Application	Analysis	Synthesis	Evaluation
LANGUAGE ARTS	1	1	1	3	3	3
READING	1	1	a	2	3	3
MATH	1	1	2b	2	3	3
SOCIAL STUDIES	1	2b	2	3	3	3
SCIENCE	1	1	2	a	3	3
PERFORMING ARTS	2	2	1	1	2	2
MUSIC	1	1	1	3	3	3
ART	1	1	1	3b	3b	2b

1: frequently involved in learning activities
2: occasionally involved in learning activities
3: seldom involved in learning activities

a: varies unsystematically across grades
b: more frequently used in upper grades

or articulated. This socialization process is largely achieved through the modeling of the values and norms by the staff and the shaping of the students by positively reinforcing imitative behavior and negatively reinforcing inconsistent and inappropriate behavior. One example of this modeling process was the high degree of cooperation among the staff. Doubtless, the value placed on cooperation by the staff was readily apparent to students. If a student failed to observe this cooperative spirit, one might hypothesize that the student would soon receive "messages," through negative reinforcement, that cooperation was highly valued. These "messages" would shape the student's behavior.

Although social interaction skills are stated goals of the early grades, socialization continues in a less obvious fashion throughout the grades. This process appears to be less obvious and formal at Fielding than at other schools. This is attributed to the high degree of homogeneity of values and behavioral expectations among all the participants in the school. This homogeneity even extends to dress and language. Although there are definite boundaries which define acceptable behavior, these boundaries are not necessarily stated in the form of rules.

The curriculum analysis team observed certain recurring patterns which were evident in the school. The teams consensus, agreement, and consistency characterized our descriptions of the classroom, the hallways, the playground, and the office. Indeed, there did not seem to be a time when this consistency of values was not predominant.

The following characteristics, collectively, constituted our attempt to describe the climate of Fielding. It is our intent to describe and give examples, where possible, of each of these characteristics.

Cordiality

Immediately upon entering the school, one is struck by the warm, congenial atmosphere. This is particularly evident in the office where the secretaries greet visitors in a friendly and helpful manner. This same spirit carries through to all areas in the school. There is an emphasis on politeness and proper etiquette among the staff which carries over to the students as well.

Orderliness of student behavior

Student behavior may be characterized as orderly and consistent with stated and unwritten rules. Although Fielding has an orderly, structured system of rules and regulations, there is no negative or oppressive atmosphere. The rules are consistently enforced by the teachers. Student insubordination was rarely, if ever, observed. Discipline is generally handled

in the classroom, and students are seldom referred to the office.

Leader authority

Closely related to the orderly behavior of the students is the recognition of the authority of the teacher. This recognition approaches deference. Students appear most eager to please the teacher, and many actively seek his or her praise or acceptance. This recognition of authority extends beyond disciplining matters. The teacher is generally viewed as the source of knowledge. The teacher provides the model of the educated person for students.

Cooperation

As stated in the introduction to this section, cooperation among teachers and among students is very evident as a primary characteristic of Fielding. Regardless of the individual staff member status there is little reliance on authority. Although divergence of opinion may exist on a given issue, the spirit of cooperation is not violated. Cooperation among students is particularly evident in the preschool and kindergarten as part of the conscious attempt to socialize the children into the institution's value and norm system. Although student cooperation receives less conscious attention in the higher grades, it continues to receive reinforcement through the modeling of the faculty.

Competition

Academic competition receives increasing emphasis as the student progresses through the grades. This competition, however, is not without restraints. Competition which overtly violates the other normative values is unacceptable. While a student is strongly encouraged to excel academically, he or she may not do so by taking unfair advantage of classmates.

Verbal

The value and practice of verbalization is a major characteristic of the Fielding environment. The teacher again provides a model of the literate, learned person. The teachers are notably articulate and self-confident. Faced with new or challenging situations they not only demonstrate problem-solving proficiency, but they also can articulate the process and product of that proficiency. This was apparent during the initial interviews. The teachers quite readily articulated their educational philosophies and instructional goals; something they are not likely called upon to do often. The interviews suggest that the majority of the faculty consider confidence and the ability to verbalize as important objectives of the instructional

program. Students are encouraged to express themselves. As one teacher stated during an interview, "Students are expected to back up their own positions and articulate the reasoning behind these positions in a clear manner."

Performance

The assemblies, the arts program, the highly verbal nature of the classroom, all evidence the emphasis on performance in the school. There is obviously a major emphasis on academic performance, but performance as used here means much more. It suggests there is a conscious intent to encourage the students to present themselves in an educated, sophisticated, and respectable manner. We found ourselves continually equating performance with the characteristics of the "educated man."

Shared Power

There is a sense of shared power and democratic spirit among the staff. There is little evidence of the headmaster's reliance on the authority of his position. On the contrary, there is a significant degree of teacher autonomy. Consensus is reached through a process of rational and reasoned discussion. This shared power does not extend to the students, however.

CONCLUSIONS AND REFLECTIONS

To conclude this paper I would like to offer some generalizations about the operational curriculum of Fielding School, some reflections on the process of inquiring into operational curricula and on inherent difficulties in reporting that process.

In sampling environmental dimensions of Fielding it was possible to generalize about knowledge, skills, and attitudes which were consistently fostered. In terms of both content and skills, programmatic continuity and sequence was found for language/communication and mathematics. Skills related to reading, composition, and oral communication were of consistent emphasis within and across the grades. Recurring were learning tasks which encouraged growth of sophistication in the use of language. This not ony included the development of technical aspects, but included attention to the elements of style as well. This was also true for reading with students encouraged to go beyond skill development to focus on style of oral reading, applying concepts of literary analysis, and reading "good" literature.

Over the grades, students write daily with attention given to different kinds/purposes of writing and to style and personal expression as well as to the development of technical skills. To engage with "good" literature and to express oneself effectively and with style is of great importance at Fielding. That these goals are preeminent was reflected in the amount of time allocated to language arts and reading and in the nature of the learning activities which were recurrent and sequenced in those areas. Preeminence was reflected, as well, in the attention given to tasks of composition and oral reports in social studies, science, and the arts.

Although less time is given to mathematics than to the language-related subjects, it manifests the same concern for sequence. Through extensive use of drill-and-practice, students are encouraged to become facile with knowledge and skills related to functional literacy in mathematics. Regular engagement with word problems over the grades fosters abilities to understand and apply concepts of math and to translate math concepts from one symbol system to another.

In terms of content, social studies, science, and the arts do not manifest a fostering of overarching understandings. There are not really programmatic strands of content which tie together the separate instructional units. What is programmatic in these subjects are learning tasks which encourage language-related skills. Compositions and/or oral reports are regularly assigned. As such, they reinforce language arts and reading skills.

Cognitive activity in social studies and science is heavily oriented toward remembering particular facts, terms, definitions,

and rules. This is particular notable for homework assignments and on tests and quizzes. It is also seen in the rather heavy use of ditto work in class sessions. While this is particularly characteristic of science and social studies, it tends to be true across the other subjects as well. It is important to note, however, that in the upper grades with science and social studies and across all grades for other subjects, major project assignments and classroom discussions offer regular opportunities to engage in processes such as application, analysis, comparison, and evaluation.

Across all subjects and grades the environment at Fielding encourages self-confidence and the skills associated with the presentation of self in group settings. With great regularity, students engage in tasks/assignments which foster the growth of communication skills, personal style, and confidence in expressing oneself. Individual and group performances are a consistent part in-class and out-of-class activities.

Broadly speaking, the environment of Fielding "teaches" that being a student involves hard work, high expectations for one's performance, deference to teacher authority, and a balance between cooperation and competition. Despite an ambiance of informality and openness among student and teacher participants in the setting, behaviorial boundaries and seriousness of purpose are conveyed. These are communicated through the myriad of daily interactions rather than on the basis of codified rules. Indeed, they are a function of a sense of values which are held in common among teachers and to which students are socialized. I suspect that the smallness of Fielding and of the individual classroom groupings contributes to this commonality. The relative homogeneity of socio-economic background of students likely contributes as well.

Besides offering a summary of salient features of Fielding's operational curriculum, I would like to address some reflections about the process of inquiry into operational curriculum. Our study of Fielding School reinforced the idea that a school manifests organic or ecological characteristics. There are salient and recurring environmental features which operate to "press" students toward the learning of particular knowledge, skills, and attitudes.

By examining a sample of phenomena (content, instructional activities, assignments, tests, and human interactions) it was possible to describe those learnings which were consistently encouraged within and among subjects and settings over the grades. While particular taxonomies and other category systems were used to analyze content and instructional characteristics, emphasis was given to the team members operating as perceptual instruments. Throughout the six months during which the study proceeded, weekly team meetings were geared to discussions of individual perceptions, the degree to which those perceptions were shared among members of the team, and implications of identified characteristics for learnings actually fostered at

Fielding.

As I reflect on the process of curriculum analysis in which we engaged, I am convinced that having a team composed of individuals experienced in the role of teacher and/or administrator was critically important. They were able to note aspects of the environment which proved to be salient and were able to engage in the "give-and-take" of discussions from a reasonably common perspective. Having shared experience in a practitioner role, even though what was shared was quite broad and general, contributed to the relative ease with which team formation occurred.

I am also convinced that we invested far more energy and time than was necessary to describe environmental regularities and, from them, to infer elements of Fielding's operational curriculum. During the first few weeks a great deal of energy was expended in simply coming to a shared conceptualization of our task and of the strategies and tactics we were to employ in completing it. An approach, giving less attention to induction processes in the group, would certainly lend economy to the effort. I want to emphasize, however, that there are no shortcuts to team formation. Early group experiences with simulated materials would be necessary for the development of operational and shared definitions of the perspective and of the elements of inquiry sketched earlier. Without a common set of understandings, the analytical process cannot operate.

Less energy could have been expended in gathering information. For example, each member of the team spent a minimum of one day per week observing in Fielding School over the six months of the study. It is likely that less observation of instructional settings could have occurred without any loss of quantity or quality of information. Observations could have been clustered at two or three points over the six months with an equally accurate noting of recurring features. It is possible that the consistency of Fielding's instructional settings would have allowed such an economy.

In the process of analyzing a schools operational curricula, the situational characteristics of the school should dictate the amount of observation and sampling. Provision of a formula for the amount of information to collect is not possible. The ultimate test is one of reasonable judgment. If, in five or six observations of an instructional setting scattered over a period of months, the observer finds consistent reiteration of particular elements of activity, interaction, and structure, identification of those elements as characteristics is certainly reasonable. Observations should continue until it is possible to identify those feature which seem most recurrent or until it is reasonable to judge a lack of consistent elements; only a scattering of anomalies.

As with any novel inquiry or use of tools, we tended to engage in "overkill." We continued to conduct observations of

instructional settings, to examine more tests and assignments, and to reexamine textual materials long after reasonable generalizations about school characteristics were drawn. After a point, such efforts did nothing but corroborate our hypotheses. This was also true for the products of our inferencing about what knowledge, skills, and attitudes were encouraged by Fielding's environmental regularities or pattern. We had to continue to relearn that inherent in our perspective and strategy it was not possible to achieve "scientific certitude."

I would like to close with a final reflection. It concerns what I would judge as a "fatal flaw" in the strategy of reporting represented in this document. As it stands, this report is more than a conference paper and less than a monograph in terms of breadth and depth. If I had been true to the standards for a monograph, far greater detail would have been given to the tactics of inquiry which are outlined. Greater attention to illustrative vignettes of the inquiry process would have been provided. Indeed, it is the nature of the inquiry process which is most important if others are to engage in analyzing operational curriculum. To so treat the inquiry process and to provide the material related to the specific case requires expansion of this report to the dimensions of a monograph.

Yet, the dimensions of the paper go beyond what is typically associated with a conference presentation. To abridge the process and product of this case is to distort the meaning of both. I suspect that characteristics of case studies and the qualitative nature of the inquiry employed explain the dilemma faced by this reporter. This is particularly true given the expectations for research as communicated by the structure of national conferences. The apparent attempt to compromise between a reporting vehicle consistent with this inquiry and that which would be judged reasonable for a conference paper explains the "fatal flaw."

Notes

1. For an excellent discussion of programmatic and behaviorial regularities and of an ecological perspective on schooling I would strongly recommend Seymour Sarason's The Culture of the School and the Problem of Change, 2nd edition (Boston: Allyn and Bacon, 1982).

2. Roger Barker's lifetime of work is an important contribution to understanding relationships between environmental ecology and human behavior. Two particularly powerful publications are Ecological Psychology (Stanford: Stanford University Press, 1968) and Habitats, Environments, and Human Behavior (San Francisco: Jossey-Bass, 1978).

3. Roger Barker and Paul Gump. Big School-Small School. Lawrence, Kansas: Midwest Psychological Field Station, 1962.

4. Seymour Sarason. The Culture of the School and the Problem of Change. Boston: Allyn and Bacon, 1982.

5. Robert Dreeben. On What Is Learned in School. Reading, Mass.: Addison-Wesley, 1968.

6. Elliot Eisner is one of the most important contemporary contributions to a perspective on schools as complex ecologies and the implications thereof for crafting, evaluating, and describing schools and school programs. Two powerful contributions are The Educational Imagination (New York: Macmillan, 1979) and Cognition and Curriculum (New York: Longman, 1982).

7. Benjamin Bloom (ed.). Taxonomy of Educational Objectives. New York: David McKay, 1956.